

REMARKS

Claims 1-13 are pending in the application. It is gratefully acknowledged that Claim 9 has been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. The Examiner has rejected Claims 1-6 under 35 U.S.C. §103(a) as being unpatentable over Ross et al. (U.S. Patent 6,426,720) in view of Rauscher (U.S. Patent 6,633,762) and further in view of East (U.S. Patent 5,400,037). The Examiner has rejected Claims 7, 8 and 10-13 under 35 U.S.C. §103(a) as being unpatentable over Ross et al. in view of Rauscher.

Please note that the Examiner stated in the Office Action Summary that none of the certified copies of the priority documents have been received. It is respectfully submitted that the priority document was filed on January 4, 2002. It is respectfully requested that the Examiner review the file and acknowledge receipt of the priority document.

Please cancel Claims 3 and 6 without prejudice.

Regarding the rejection of independent Claims 1 and 4 under §103(a), the Examiner states that the combination of Ross et al. in view of Rauscher and further in view of East discloses all of the elements of these claims. Ross et al. discloses a system and method for directing an adaptive antenna array. Rauscher discloses a smart mobile assisted handoff (MAHO) method that disables the MAHO. East discloses a self-focusing antenna array. Claims 1 and 4 have been amended to include the elements of Claims 3 and 6, respectively. Amended Claims 1 and 4 recite that the weight vector is calculated by $w_T = k_T a(\theta, \phi, \lambda_T)$. This calculation incorporates the elevation angle of the z-axis and the azimuth angle. Neither of these two elements is disclosed in Ross et al. Specifically, Ross et al. states, in cols. 3 and 4, that its weight vector is based on latitude, longitude and elevation (in feet). Rauscher and East do not cure this defect. Based on at least the foregoing amendments and/or remarks, withdrawal of the rejections of Claims 1 and 4 is respectfully requested.

Regarding the rejections of independent Claims 7, 8 and 10-13 under §103(a), the Examiner stated that all of the elements of these claims were disclosed by the combination of Ross et al. in view of Rauscher. The rejections will be addressed in two groups. The first group includes independent Claims 7, 8, 11 and 12, and the second group includes independent Claims 10 and 13.

Regarding the first group, independent Claim 7 recites a position angle calculator for calculating a position angle of the mobile station with respect to the base station from the relative coordinates of the mobile station. Claims 8, 11 and 12 each recite a similar element. The Examiner cites Ross et al. col. 3, line 9 to col. 4, line 51 as disclosing this element. Nowhere in the cited section of Ross et al., nor any other sections, does Ross et al. disclose calculating a position angle. Rauscher does not cure this deficiency of Ross et al. Additionally, Ross et al. discloses a position angle of an aircraft with respect to an antenna array is calculated from the position information of the absolute coordinates. Whereas, the claims of the present application recite that relative coordinates of the mobile station are calculated with respect to the absolute location of the base station and a position angle of the mobile station with respect to the base station is calculated from the relative coordinates of the mobile station. Based on at least the foregoing remarks, withdrawal of the rejections of Claims 7, 8, 11 and 12 is respectfully requested.

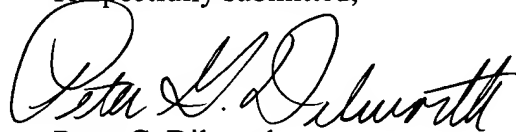
The second group of independent Claims 10 and 13, each of these claims recites a weight vector storage. The weight vector storage stores optimum weight vectors versus position coordinates in the form of a table. The Examiner states that Ross et al. discloses at col. 3, lines 21-52, this element. There is no storage area disclosed in Ross et al. that stores weight vectors versus position coordinates in the form of a table. All that Ross et al. shows is latitude, longitude and elevation information. Additionally, Ross et al. simply discloses that position information of the aircraft and antenna array is stored, but fails to disclose that optimum weight vectors are stored in the form of a table and that the optimum weight vectors are calculated from the position coordinates within a predetermined base station area, as recited in the claims of the present

application. Based on at least the foregoing remarks, withdrawal of the rejections of Claims 10 and 13 is respectfully requested.

Independent Claims 1, 4, 7, 8 and 10-13 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 2, 3, 5, 6 and 9, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 2, 3, 5, 6 and 9 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-13, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Peter G. Dilworth", written in a cursive style.

Peter G. Dilworth

Reg. No. 26,450

Attorney for Applicant(s)

DILWORTH & BARRESE
333 Earle Ovington Blvd.
Uniondale, New York 11553
Tel: (516) 228-8484
Fax: (516) 228-8516

PJF/MJM/dr